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LOG OF MEETING

SUBJECT: Discuss issues related to AFSL's testing of fireworks and standards.

DATE OF MEETING: September 08 - 10, 2000

DATE OF LOG ENTRY: January 05, 2001

PERSON SUBMITTING LOG: Neal G. Gasser, Chemist, Division of Chemistry

LOCATION: Hyatt Regency Hotel, Bethesda, MD

CPSC ATTENDEE:

Neal G. Gasser, Chemist, Division of Chemistry (LSC)

Patrick M. Race, Compliance Officer, Recalls and Compliance Division (CRC)

NON-CPSC ATTENDEE(S):

John Rogers
Jesse Berrera
Stephen Shaffer

John Conkling
Bob Fletcher
Tom DeWille

Dale Miller
Larry Brown
Tim Brainerd

SUMMARY OF MEETING:

Meeting Topics:

- Reviewed results of AFSL testing program including overall compliance rate and test results for different categories of each product. Top 25% of violations for all product types fall in the blowout category, and 14% of all violations were for labeling
- Reviewed the *Standard for Reloadable Tube Aerial Shells - Classification 22 (AFSL 108-97)* and made the following modification:
 1. Raise the shell gross weight limit from 50 grams to allow a pyrotechnic composition weight limit of 60 grams (40g effect/20 lift) per shell
 2. Allow 400 grams of total pyrotechnic chemical composition per retail package and 12 shells per retail package.
 3. Each retail package must contain at least one launch tube.
 4. Some factors that were considered regarding the modifications were past injuries, the need to clarify the standard, and make this standard consistent with existing federal regulations and proposed modifications (Department of Transportation (DOT) pyrotechnic composition weight limits) while continuing to provide safety

- requirement consistent with the intent of the standard.
5. Members of the AFSL Standards Committee feel that limits on chemical composition are adequate to maintain acceptable level of safety.
- Review and modification of the AFSL *Standard for Comets, Mines, and Shells - Classification 21 (AFSL 102-97)*
 1. The Committee first reviewed the amendments made to the DOT regulations regard Comets, Mines, and Shells, and then the standard from the American Pyrotechnics Association, Standard 87-1.
 2. The section of the AFSL 102-97 standard that currently contains a limit of 200 grams total chemical composition for multiple tube devices was amended to allow such devices a total chemical composition of 500 grams provided that the tubes are securely attached to a single wood or plastic base, and the tubes are separated from each other on the base by a distance of at least 0.50 inches (12.7mm).
 3. Some of the rational for these changes were that the members of the AFSL Standards Committee believe that larger, heavier devices with a single base provide greater stability against tip-over without compromising other safety considerations, and to make this standard consistent with existing federal regulations and proposed modifications of the Department of Transportation (DOT).
 - Labeling for Device(s) that shoot "Streamers" into the air
 1. Reviewed a handout regarding fireworks device. Handout states that the existing warning statement "Shoots Flaming Balls" is inaccurate, and that the device should be classified as a novelty.
 2. A motion was made that a generic standard for fireworks devices that project nonflammable, non-pyrotechnic effects, such as streamers, into the air should be made. The motion carried without objection
 3. The committee decided that additional information and a sample of the device was needed for further examination. A committee member will draft a label standard for next committee meeting.
 - Roman Candles without spikes and without reports (Standard 109-97)

Some changes were made regarding a portion of the warning label. The statement "Stick Spike end in Ground" will be replaced with "Bury Tube halfway in sand or soil...and point away". John Rogers will compose a sample and refer to CPSC for comment.
 - Roman Candles with spikes and with reports (Standard 109-97)
 1. A new section will be added to read "Spikes must be constructed of a material that allows the device to be mounted in the ground."
 2. Crossette stars in Roman Candles. Only roman candles with stars roughly the size under current review (approx. ¼-inch dia.), are being examined. At present, Dr. Conkling's test procedure is determined to be adequate. A motion was made to table

additional discussion (passed without objection).

○ Lead compounds in fireworks were discussed. The AFSL Board recommendation that lead be added to the AFSL prohibited chemical list (Appendix A of standard), and the Committee concurred. AFSL has begun a screening program, and is awaiting results.

○ Aerial Effects in Novelties were review next. The AFSL Board asked the Committee to clarify the 3 meter requirement, (i.e., any direction?) There was some opening discussion regarding horizontal, arc, and aerial directions. The Committee reviewed minutes of previous meeting, and a motion was made that Committee review the issue at next meeting. The Committee also recommended some testing, and to consider prohibiting break charges in novelties. A motion was made, and passed without objection.

○ Reports in aerial items. John Rogers provided some background information and history on the topic. He stated that there was a difficulty for AFSL to test accurately and to articulate to the manufacturers what the policy is. John Rogers also feels that the AFSL standard isn't clear enough, and that it is difficult to get consistency in testing by 35 technicians. AFSL's goal is development of definition for report, and possibly present it to CPSC for consideration.

The committee requested from AFSL a list of samples/devices that passed AFSL testing and failed CPSC testing (for excessively loud report) as well as those that passed CPSC testing. The Committee wants to examine the results in an effort to devise an appropriate test to make the testing programs compatible.

A subcommittee has been appointed consisting of Neal Gasser, Larry Brown, John Conkling, John Rogers, Tom DeWille and Pat Race. The committee also wants to examine various thickness' of kraft paper for penetration tests involving stars and paper shell fragments.

○ Larry Brown moved that the committee return the M-XX Firecracker issue to the board without action. The motion passed.

○ The committee recommends to the board that the 3 meter drop test requirement be part of AFSL factory certification for the manufacture of booby Traps. The test should be the one used in the original AFSL certification (Table 4 Part B of AFSL dated June 25 1990). Booby traps will only be accepted from certified factories. Motion by John Conkling seconded John Stringer Passed.

○ A motion was made to incorporate the provisions of DOT CA-0006014 in Appendix 3. The motion passed.